

CLAIMS

What is claimed is:

1. 1. A filtering apparatus, comprising an inlet channel for flow to be filtered, an outlet channel for filtered flow, a number of parallel filtering elements, into which flow to be filtered may be directed so that infiltration occurs through a jacket of an element, and at least one rotating washing organ connecting alternately to the different elements for forming a discharge channel for backflushing of the elements generated with the pressure of the filtered flow; and a freewheel clutch connected to a rotating axle of the washing organ, wherein the clutch converts reciprocating movement generated with pressure of the flow in the apparatus and alternating lower pressure into a continuously parallel, stepping rotary movement of the axle.
1. 2. The apparatus according to claim 1, wherein the freewheel clutch comprises a coupling organ driving the rotating axle of the washing organ, which is alternately in sliding contact with the axle and which alternately locks into the axle for rotating the axle, the said coupling organ being articulated to the piston reciprocating on the alternating pressure.
1. 3. The apparatus according to claim 2, wherein in the apparatus includes channels and related control valves for coupling the pressure of the filtered flow and the lower counterpressure alternately to different sides of the piston.
1. 4. The apparatus according to claim 3, wherein the pressure in the discharge channel of the backflushing flow is coupled as counterpressure for the pressure of the filtered flow.

1 5. The apparatus according to claim 1, wherein the filtering elements are cylindrical
2 and arranged on one or several circumferences surrounding the rotating axle of the
3 washing organ.

1 6. The apparatus according to claim 5, wherein the washing organ consists of one or
2 more tubular washing arms transverse to the rotating axle and connecting alternately to
3 the ends of different filtering elements

1 7. The apparatus according to claim 1, wherein the apparatus includes two or more
2 washing organs connected to the same rotating axle for simultaneous backflushing of two
3 or more filtering elements.

1 8. The apparatus according to claim 7, wherein the apparatus comprises a washing
2 organ at both ends of the parallel filtering elements, and that the washing organs are
3 made as one piece with the rotating axle.

1 9. The apparatus according to one claim 1, wherein the apparatus is adapted for
2 filtering a fuel or luboil filter of a motor, especially a luboil filter of a diesel motor.

1 10. A method for washing filtering elements in a filtering apparatus, which comprises
2 an inlet channel for flow to be filtered, an outlet channel for the filtered flow, and a
3 number of parallel filtering elements, into which the flow to be filtered is directed so that
4 infiltration occurs through an element jacket, in which method the washing is achieved by
5 connecting different elements alternately to a rotating washing organ so that the washing
6 is carried out as backflushing directed to the washing organ with the pressure of the
7 filtered flow, and a rotating axle of the washing organ is rotated in a stepping manner
8 continuously in the same direction using a reciprocating mechanism, the reciprocating
9 movement of which is generated with the pressure of the flow prevailing in the apparatus
10 and alternating lower pressure.

1 11. The method according to claim 10, wherein the axle of the washing organ is
2 rotated with the pressure of the filtered flow and with the lower pressure alternating with
3 the filtered flow pressure.

1 12. The method according to claim 10, wherein the steps of the washing organ are
2 generated with a freewheel clutch, comprising a coupling organ driving the rotating axle
3 of the washing organ, the coupling organ being alternately in sliding contact with the axle
4 and alternately locking into the axle for rotating the axle, the moving of the said coupling
5 organ being carried out with a piston articulated with the coupling organ, the piston being
6 moved back and forth by connecting the said pressures of different elements alternately to
7 different sides of the piston.